

TMDL IMPLEMENTATION PLAN

WAHOO CREEK

Submitted by Chattahoochee-Flint RDC

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August 2, 2006

**STATE OF GEORGIA
TMDL IMPLEMENTATION PLAN
WAHOO CREEK, COWETA COUNTY, GEORGIA**

Background

Wahoo Creek, which flows through Coweta County, Georgia, has a beneficial water use classification of fishing and is currently listed as an impaired water body. The target TMDL for Wahoo Creek is set at 175 cfu/100ml. Achieving this level will allow the water body to be removed from the 303(d) list.

The TMDL is the total amount of pollutant that can be assimilated by the receiving water body while achieving water quality standards. Section 303(d) of the Federal Clean Water Act and EPA's Water Quality Planning and Management Regulations (40 CFR Part 130) require states to develop total daily maximum load (TMDL) management plans for the water bodies that do not meet designated uses under technology-based controls for pollution. The TMDL process establishes the allowable loadings of pollutants or other quantifiable parameters for a water body based on the relationship between pollution sources and in-stream water quality conditions, so that states can establish water-quality based controls to reduce pollution from both point and nonpoint sources and restore and maintain the quality of their water resources (USEPA, 1991). For bacteria such as fecal coliform, loads are expressed in terms of cells per 100ml of water.

A general implementation plan outlining mitigating activities to be established in the Wahoo Creek Watershed is included in this document. The purpose of this plan is to reduce or eliminate the pollutants contained in the runoff into Wahoo Creek. The implementation plan will be carried out with full participation of all interested parties. The implementation plan is to be considered a living document. In the process of carrying out the plans additional water quality data will be generated and the results will be integrated into the plans. Load capacity will be adjusted, for example, if new data indicates that the targets used are not appropriate or if new standards are adopted.

Existing TMDL and Monitoring Data

The source of data used for the development of this plan was the TMDL document. The levels indicated in the TMDL document are based on a model run for 1987 and 1988 critical time periods using 'calibrated' fecal and flow parameters. The representative critical summer time period used was May through October 1987 and the representative critical winter time period was November 1987 through April 1988. This model resulted in a summer fecal coliform 30-day geometric mean of 500 cfu/100ml. This is 325 cfu/100ml above the target level of 175 cfu/100ml.

More data is needed to identify sources of nonpoint pollution within the watershed. Local expertise and involvement from environmental agencies, federal agencies, schools and universities, and other sources will play a critical role in identifying and reducing the levels of fecal coliform in Wahoo Creek.

Land Use

Wahoo Creek watershed encompasses 25.2 square miles (16,119 acres) in the northwestern portion of Coweta County, Georgia. The watershed has mixed land use with agricultural use accounting for 32% of land use within the watershed. The remaining 68% is distributed between forest (64%), barren land (0%), and urban uses (4%).

Based on the current data, impairment of the Wahoo Creek is due to higher than acceptable levels of fecal coliform in the base flow. This can be attributed to unidentified non-point sources

such as leaking septic tanks, leaking sanitary sewer pipes, illicit connections, animal feed lots, etc..

Existing Regulatory or Voluntary Action

Coweta has regulatory measures in place that affect water quality in Wahoo Creek. Coweta County's Flood Damage Protection Ordinance states that "Agricultural practices shall not impair the drinking quality of water as defined in the Federal Clean Drinking Water Act". In addition, the County's Chattahoochee River Corridor Protection District requires natural buffers along all tributaries and states that "Agricultural, industrial, and commercial activity shall not impair the drinking water quality of the water as defined in the Federal Clean Drinking Water Act".

Georgia is in the process of implementing a watershed approach to water resource management through River Basin Management Planning. River basin planning is the foundation for implementation of water protection strategies in Georgia. This approach provides the framework and schedule for actions to address the waters of Georgia 303 (d) list. The basin planning program is based on legislation in 1992 (O.C.G.A. 12-5-520) by the Georgia Assembly that calls for EPD to develop river basin management plans for each of the major river basins in Georgia. The Chattahoochee River Basin Management Plan was adopted in 1997.

The Natural Resource Conservation Service (NRCS), Georgia Soil and Water Conservation Commission (GSWCC), and Georgia Forestry Commission (GFC) are actively disseminating information on Best Management Practices (BMPs) within the Wahoo Creek Watershed. NRCS's focus is on BMPs targeted at forestry, erosion and sedimentation control, and agricultural practices, GSWCC does consulting on all BMP applications for all land use types and GFC focuses on BMPs for forestry. In addition, the Coweta County Extension Service administers an Adopt-A-Stream program that involves 4-H, cattle growers and other interested parties in water quality monitoring.

Recommended Regulatory or Voluntary Actions

Implementation of measures to address the TMDL involves the cooperation of all landowners and land users in the watershed. Broad awareness and involvement are essential to the success of the implementation plan. Through careful land use planning and the use of best management practices, the impacts of storm water runoff can be minimized. Storm water runoff can be improved through methods like erosion control and the establishment of green spaces, parklands and stream buffers.

Coweta County is in the process of amending their Zoning Ordinances to comply with more stringent state requirements. This includes amending the Soil Erosion and Storm Water Ordinances to implement state National Pollution Discharge Elimination System (NPDES) requirements and their Soil Erosion Ordinance to include recommendations of the Erosion and Sedimentation Control Technical Study Committee (DIRT II). The Implementation Plan also recommends that the county expand the Nutrient Management Program, conducted through the County Cooperative Extension Service, to include fecal coliform reduction, to adopt a Groundwater Recharge Area Protection District and to establish an Adopt-A-Stream program for Wahoo Creek.

Implementation Plan Schedule

The Implementation Plan for Wahoo Creek Watershed contains a work plan outlining the tasks to be accomplished during Phase I of the program (years 1 through 5).

A stakeholder group for Wahoo Creek Watershed has been identified. During the first year, this group will meet and determine how it will function to best achieve its goals. The stakeholders group must work together to identify additional remedial measures and sources of funding needed for their implementation. Management programs must be established and/or expanded as well as implemented during this first year. Educational programs focused at schools, interest groups and landowners will be developed and implemented during the first year. Monitoring and status reports of fecal coliform levels will be implemented during the first year. Work will also begin on detecting and eliminating any illicit discharges.

After the first year, work will continue throughout Phase I in the following areas: implementing and educational and outreach programs, detecting and eliminating illicit discharges, evaluation of additional management controls, monitoring and evaluating progress, and providing period progress reports. If the fecal coliform levels remain above the targeted level during the fourth year of the plan, the process to develop a more stringent Phase II plan should begin during the fifth year. The projected attainment date is ten years from the acceptance of this implementation plan by the EPD.

Monitoring Plan

Monitoring is a critical component in determining the success of the implementation plan. Monitoring helps assess compliance with regulations, major sources of loading and the effect of regulatory and voluntary measures implemented in the drainage basin. No two watersheds are alike. Therefore, in determining actual fecal coliform levels, it is essential to rely on monitoring of particular watersheds rather on computer modeling.

The EPD will monitor levels of fecal coliform in Wahoo Creek in 2005. Additionally, the County and City of Newnan's Water Departments, as well as the Adopt-A-Stream Program will monitor yearly for water quality.

Criteria to Determine Progress

Progress in meeting the goals of the Implementation Plan will be determined through analysis of water quality sampling results. Periodic monitoring will show the trends of fecal coliform levels throughout the five-year period. The number of regulatory controls or best management practices implemented in the Wahoo Creek Watershed will also serve as a measure of progress. The implementation plan will be considered successful if the TMDL level for Wahoo Creek meets the target TMDL level and the stream is removed from the 303 (d) list.

Conclusion

The development and implementation of an effective TMDL plan is critical to the environmental health of Coweta County. Removal of Wahoo Creek from the 303 (d) list and compliance with the Federal Clean Water Act is in the best possible environmental and economic interest of the County. Without the success the TMDL Implementation Plan the county could face difficulty in areas such as the expansion or development of wastewater treatment facilities and the location of industries that may contribute to increased levels of fecal coliform.

Success will be achieved through the continued enforcement of existing regulatory measures as well as the implementation of new measures. In addition, new, existing, and expanded voluntary measures will play a key role in achieving the ultimate goal. If fecal coliform levels in Wahoo Creek have not reached acceptable levels at the completion of the first five-year period, a second phase of implementation will be developed.

STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN FOR: : Wahoo Creek
(STREAM)

Fecal coliform
(PARAMETER)

RIVER BASIN: Chattahoochee
PLAN DATE: March 31,2001

| | | | | | | | |
|---|--|--|--|-------|----|--------|-------|
| Prepared by: Chattahoochee-Flint Regional Development Center Address: 13273 GA Hwy 34 E, P.O. Box 1600 City: Franklin State: GA Zip: 30217-1600 e-mail: Inicholas@cfrdc.org | | Or Prepared By: Address: _____ City: _____ State: _____ Zip: _____ e-mail: _____ | | | | | |
| Date Submitted to EPD: 03-29-01 | | Date Submitted to EPD: _____ | | | | | |
| General Information | | Significant Stakeholders | | | | | |
| Obtain this information from the TMDL document or other information. When completed, this document will be a self-contained report independent of the TMDL document. | | Identify local governments, agricultural organizations or significant land holders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups with a major interest in this water body. | | | | | |
| TMDL ID (to be entered by EPD) | | Name/Organization | Coweta County | | | | |
| Water body name | Wahoo Creek | Address | 22 East Broad Street | | | | |
| HUC basin name | Wahoo Creek | City | Newnan | State | GA | Zip | 30236 |
| HUC number | 031300020403 | Phone | 770-254-2601 | | | e-mail | |
| Primary county | Coweta | Name/Organization | City of Newnan | | | | |
| Secondary county | | Address | PO Box 1193 | | | | |
| Primary RDC | Chattahoochee-Flint | City | Newnan | State | GA | Zip | 30264 |
| Secondary RDC | | Phone | 770-253-2682 | | | e-mail | |
| Water body location | Downstream of Arnco Mills Lake (Coweta County) | Name/Organization | Rolling Hills RC&D | | | | |
| | | Address | 203 Legion Road | | | | |
| Miles or area impacted | 5 | City | Dallas | State | GA | Zip | 30132 |
| Parameter addressed in plan | Fecal coliform bacteria | Phone | 770-505-4288 | | | e-mail | |
| Water use classification | Fishing | Name/Organization | Coweta County Cattleman's Association | | | | |
| Degree of impairment | Partially supporting use <input type="checkbox"/> | Address | PO Box 891 | | | | |
| | Not supporting use <input checked="" type="checkbox"/> | City | Newnan | State | GA | Zip | 30264 |
| Date TMDL approved by EPA | | Phone | 770-927-6421 | | | e-mail | |
| Impairment due to | Point sources <input type="checkbox"/> | Name/Organization | Coweta County Extension Agent (Adopt a Stream Program) | | | | |
| | Nonpoint sources <input checked="" type="checkbox"/> | Address | PO Box 891 | | | | |
| | Both <input type="checkbox"/> | City | Newnan | State | GA | Zip | 30264 |
| Point source-Form A; Nonpoint source-Form B; Both-Form A+B+C | | Phone | 770-254-2620 | | | e-mail | |

Stakeholders continued on last page

SUMMARY OF ALLOCATION MODEL RESULTS FROM TMDL DOCUMENT (existing load, target TMDL, and needed reduction)

| EXISTING LOAD | TARGET TMDL | NEEDED REDUCTION |
|----------------------|--------------------|-------------------------|
| 500 cfu/100 ml | 175 cfu/100 ml | 325 cfu/100 ml |

I. IDENTIFY NONPOINT SOURCE CATEGORIES AND SUBCATEGORIES OR INDIVIDUAL SOURCES WHICH MUST BE CONTROLLED TO IMPLEMENT LOAD ALLOCATIONS:

List major nonpoint sources contributing to impairment including those identified in TMDL document

| SOURCE | DESCRIPTION OF CONTRIBUTION TO IMPAIRMENT | RECOMMENDED LOAD REDUCTION (FROM TMDL) |
|---------------|--|---|
| Urban Sources | 100% contribution to the impairment. Pollutants, due to deposition, street cleaning, etc. accumulate between storms and are washed off during storm events, septic tank leakage, leaking sanitary sewer pipes, illicit connections, etc. | 95% |

II. DESCRIBE ANY REGULATORY OR VOLUNTARY ACTIONS INCLUDING MANAGEMENT MEASURES OR OTHER CONTROLS BY GOVERNMENTS OR INDIVIDUALS THAT SPECIFICALLY APPLY TO THE POLLUTANT AND THE WATERBODY FOR WHICH THE TMDL WAS WRITTEN, THAT WILL BE ACCOMPLISHED THROUGH RELIABLE AND EFFECTIVE DELIVERY MECHANISMS, AND THAT WILL HELP ACHIEVE THE LOAD ALLOCATIONS IN THE TMDL:

A. Existing or required regulatory actions

| RESPONSIBLE GOVERNMENT, ORGANIZATION OR ENTITY | NAME OF REGULATION/ORDINANCE | DESCRIPTION | ENACTED / PROJECTED DATE | STATUS |
|---|--|--|---------------------------------|---------------|
| Coweta County | Flood Damage Prevention Ordinance | States “ Agricultural practices shall not impair the drinking quality of the water as defined in the Federal Clean Drinking Water Act | Enacted 1990 | Active |
| Coweta County | Chattahoochee River Corridor Protection District | Requires buffers of natural vegetation along all tributaries. States “ Agricultural, industrial, and commercial activity shall not impair the drinking quality of the water as defined by the Federal Clean Drinking Water Act”. | Enacted 1990 | Active |

Existing voluntary actions

| RESPONSIBLE ORGANIZATION OR ENTITY | NAME OF ACTION | DESCRIPTION | ENACTED / PROJECTED DATE | STATUS |
|--|--|---|---------------------------------|---------------|
| Georgia Forestry Commission | BMP's for forestry | Disseminating information to interested individuals and organizations | | Ongoing |
| Natural Resource Conservation Service | BMP's for agriculture | Disseminating information to interested individuals and organizations | | Ongoing |
| Natural Resource Conservation Service | BMP's for Erosion and Sediment Control | Disseminating information to interested individuals and organizations | | Ongoing |
| Coweta Extension Service | Adopt-a-Stream | Involving 4-H, Scouts, Cattle Growers on water quality monitoring | 5-01 | Training |
| Georgia Soil & Water Conservation Commission | Consulting on BMPs | Disseminating information to interested individuals and organizations | | Ongoing |

C. Additional recommended regulatory or other measures, which should be implemented to reduce the loads of the TMDL parameter

| ENTITY/ORGANIZATION RESPONSIBLE | NAME OF PROPOSED REGULATION/ORDINANCE/ OTHER | DESCRIPTION | ENACTED / PROJECTED DATE | STATUS |
|---|--|--|--------------------------|--------------|
| Coweta County | Groundwater Recharge Area Protection Ordinance | Would regulate land use in recharge areas to protect water quality | | Under Study |
| Coweta County | NPDES Permit | Amend soil erosion and storm water ordinances to implement state NPDES requirements | 08-00 | Ongoing |
| Coweta County | Amend Soil Erosion Ordinance | Include recommendations of the Erosion and Sedimentation Control Technical Study Committee (DIRT II) | 06-02 | Under review |
| Coweta County Cooperative Extension Service | Nutrient Management Plans | Expand the program to include fecal coliform reduction | 09-02 | Under study |
| Coweta County | Adopt-a-Stream | Involving 4-H, Cattle Growers, etc on water quality monitoring | 5-01 | Training |

III. SCHEDULE FOR IMPLEMENTING MANAGEMENT MEASURES OR OTHER CONTROL ACTIONS:

These must be implemented as expeditiously as practicable within five years of when the implementation plan is accepted by EPA.

| IMPLEMENTATION ACTION* | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 |
|--|--------|--------|--------|--------|--------|
| Form stakeholders group | X | | | | |
| Organize implementation work with stakeholders and local officials to identify remedial measures and potential funding sources | X | | | | |
| Identify sources of TMDL parameter | X | | | | |
| Develop management programs to control runoff including identification and implementation of BMPs (Phase I): | X | | | | |
| Agriculture | | | | | |
| Forestry | X | | | | |
| Urban | X | | | | |
| Mining | | | | | |
| Organize and implement education and outreach programs | X | X | X | X | X |
| Detect and eliminate illicit discharges | X | X | X | X | X |
| Evaluate additional management controls needed | X | X | X | X | X |
| Monitor and evaluate results | X | X | X | X | X |
| Reassess TMDL allocations | | X | X | X | X |
| Provide periodic status reports on implementation of remedial activities | X | X | X | X | X |
| If needed, begin process for Phase II (next 5 years) and subsequent phases | | | | X | X |
| * This schedule may be revised after meeting with the regional Water Issues Committee and stakeholders | | | | | |

IV. PROJECTED ATTAINMENT DATE AND BASIS FOR THAT PROJECTION:

The projected attainment date is 10 years from acceptance of the implementation plan by EPA.

V. MEASURABLE MILESTONES:

- Number of management controls and activities already implemented 7
- Number of management controls and activities proposed in five-year work program 4
- Number of management controls and activities actually implemented in five-year work period _____(to be completed after 5 years)
- Stream sampled to identify areas of concern See monitoring plan

VI. MONITORING PLAN:

Monitoring data that placed stream on 303(d) list will be provided if requested.

Describe previous or current sampling activities or other surveys to detect sources or to measure effectiveness of management measures or other controls.

| ORGANIZATION | TIME FRAME | PARAMETERS | PURPOSE | STATUS |
|--|---------------|----------------|--------------------------|---------|
| Dept of Environmental Health | 2000-2005 | Fecal coliform | Septic System Assessment | Ongoing |
| City of Newnan Water Department | Annual | Fecal coliform | Water quality testing | Ongoing |
| Coweta County Water and Sewer Dept | Annual | Fecal coliform | Water quality testing | Ongoing |
| Coweta County Extension Service / Adopt-a - Stream | 05-01-ongoing | Fecal coliform | Water quality testing | Ongoing |

Describe any planned or proposed sampling activities or other surveys. (Scheduled EPD sampling can be found in the Basin Planning document.)

| ORGANIZATION | TIME FRAME | PARAMETERS | PURPOSE | STATUS |
|--------------|------------|------------|----------------|---------|
| EPD | 2001 | Multiple | Basin planning | ongoing |

VII. CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE:

- % concentration or load change (monitoring program)
- Categorical change in classification of the stream (delisting the stream is the goal)
- Regulatory controls or activities installed (ordinances, laws)
- Best management practices installed (agricultural, forestry, urban)

COMMENTS

Additional Stakeholders: _____

Coweta County Department of Environmental Health, 137 Jackson St Newnan, GA 30263 770-254-7400